

REMARKS

Claims 7-12 are pending in the present application. Claims 7 and 10-11 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Nikolaeva et al (SUPN 1094088) in view of Nikolaeva et al (SUPN 1076981). Claim 12 was rejected under 35 U.S.C. §102 (b) as being unpatentable over Hammond et al (DEPN 2652506). Claims 8-9 were indicated as being allowable if rewritten in independent form.

Claim 7 has been amended.

Summary of Examiner interview

A telephonic interview was held on January 20, 2004 between the Examiner and applicants' attorney Erik Swanson. Applicants' attorney noted that claim 7 recites that the electrodes define "respective hollow spaces therein", i.e., the electrodes each have a respective hollow space in the electrode itself, which provides certain advantages. In contrast, the Nikolaeva et al '088 and Nikolaeva et al '981 references show generally flat electrodes with no hollow spaces in the electrodes. The Examiner indicated that the devices of the Nikolaeva et al '088 and Nikolaeva et al '981 references do have hollow spaces, but not in the electrodes themselves. The Examiner indicated he would consider further the specific aspect of the hollow space being in the electrodes, as recited.

Amendment to claim 7

Independent claim 7 has been amended to recite "each of the first and second electrodes ... defining a respective hollow space in the respective electrode" so as to clarify that each electrode has a respective hollow space in the electrode itself. It is respectfully submitted that this amendment merely recites in different words what was already present in the claim with respect to each electrode having a hollow space. The claim scope remains the same and has not been narrowed. It is respectfully submitted that this clarifying amendment does not necessitate a new search, as the claim scope has not changed.

Rejection under 35 U.S.C. §103 (a) to claims 7 and 10-11

Claims 7 and 10-11 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Nikolaeva et al '088 in view of Nikolaeva et al '981.

Nikolaeva et al '088 shows a device having generally flat electrodes 1 and 2. See Fig. 1. Nikolaeva et al '981 shows a device also having generally flat electrodes 1 and 2. See Fig. 1.

Independent claim 7 of the present application, as amended, recites a self-recovering current-limiting device including a first and a second electrode each "defining a respective hollow space in the respective electrode". As described in the present specification, the electrodes having the recited hollow space provides distinct advantages. The hollow spaces provide additional space serving as a reservoir for liquid metal which, when the position of use changes, is available at a different location, thus serving the sufficient reliability of the current-limiting device. When the longitudinal axis is inclined, the hollow space of the electrode that moves upward empties from the liquid metal due to gravity in the measure in which the hollow space of the electrode that moves downward fills with liquid metal. During further increasing inclination, the hollow space of the lower electrode fills completely with liquid metal and the hollow space of the upper electrode, in the extreme case, completely empties; however, this electrode is still sufficiently wetted with the liquid metal due to the hollow space configuration. See specification at paragraph [0005] and Figs. 1-4.

It is respectfully submitted that neither Nikolaeva et al '088 nor Nikolaeva et al '981 teach or suggest the recited hollow space electrode feature of claim 7. In contrast, both Nikolaeva et al '088 and Nikolaeva et al '981 show flat electrodes with no hollow spaces, and consequently do not provide all advantages of the claimed invention. Since both Nikolaeva et al '088 and Nikolaeva et al '981 are missing the recited hollow space electrode feature, even if these references were to be combined, their combination would not provide the recited invention.

For at least the reasons stated above, withdrawal of the rejection of independent claim 7, as well as its dependent claims 10-11, under 35 U.S.C. §103 (a) based on Nikolaeva et al '088 in view of Nikolaeva et al '981 is respectfully requested.

Rejection under 35 U.S.C. §102 (b) to claim 12

Claim 12 was rejected under 35 U.S.C. §102 (b) as being anticipated by Hammond et al.

Claim 12 properly depends from, and therefore includes all the limitations of, independent claim 7. Hammond et al does not teach at least the above-discussed hollow space electrode feature recited in claim 7. Therefore Hammond et al cannot anticipate claim 12.

Withdrawal of the rejection of claim 12 under 35 U.S.C. §102 (b) based on Hammond et al is hereby respectfully requested.

Allowable subject matter

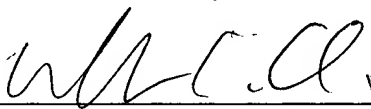
Claims 8 and 9 were objected to as being dependent from a rejected base claim, but were indicated as being allowable if rewritten in independent form. Applicants thank the Examiner for this indication of allowability, but respectfully decline to amend claims 8 and 9 until the amendments and remarks presented herein have been considered by the Examiner.

CONCLUSION

It is respectfully submitted that the application is now in condition for allowance.

Respectfully submitted,

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